

Q-EMPHASIZED AMPLIFIER WITH
INDUCTOR-BASED BANDWIDTH BOOSTER

ABSTRACT OF THE DISCLOSURE

A buffer employs an input stage with an active, LC load. The active load includes integrated inductors that combine with the parasitic gate capacitances of a pair of transistors in a negative-transconductance ($-G_m$) booster configuration. The resulting active load emphasizes a desired frequency, improving the quality, or "Q," of the input stage, and consequently of the entire buffer.